

### Abstract

In a continuous process for fractionating a  $C_4$  fraction ( $C_4$ ) by extractive distillation using a selective solvent (LM) in an extractive distillation column (EDK), it is proposed that a dividing wall (TW) is installed in the longitudinal direction in the extractive distillation column (EDK) to form a first region (A), a second region (B) and a lower combined column region (C) and a top stream ( $C_4H_{10}$ ) comprising the butanes is taken off from the first region (A), a top stream ( $C_4H_8$ ) comprising the butenes is taken off from the second region (B) and a stream ( $C_4H_6$ ) comprising the hydrocarbons from the  $C_4$  fraction which are more soluble in the selective solvent (LM) than are the butanes and the butenes is taken off from the lower combined column region (C).

15

(Fig. 1)